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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,390	02/18/2004	Ceary L. Eppley	MS1-1918US	1910
22801	7590	09/01/2006	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			NGUYEN, CINDY	
			ART UNIT	PAPER NUMBER
			2161	

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/781,390

Applicant(s)

EPPLEY ET AL.

Examiner

Cindy Nguyen

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This is in response to application filed on 02/18/04 in which claims 1-29 are presented for examination.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4, 8, 10, 11, 14, 16, 18-22, 24 and 25 recite pronoun "that" is not permitted in the claim. Correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 and 25-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-10, the claimed invention does not fulfill any of the disclosed utilities as in specification, the claim has non functional descriptive material that provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. 101, an also no practical application for abstract idea for managing order document data, they do not impart functionality to the computer, they are not computer components and they only present as abstract idea . Therefore, no useful, concrete or tangible result is produced

Regarding claims 11-13 and 25-29, a computer-readable media carrying one or more sequences of Instructions for executing transactions is recited in the claim. "Computer-readable medium" as defined in the specification (0106, 0109) includes modulated signal such as a carrier wave or other transport mechanism and includes any information delivery media such as wired network or direct wired connection and wireless media such as acoustic, RF, infrared and other wireless media. A signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter. Therefore, claim 8 is not statutory (As set forth in § 101, a claimed signal is clearly not a process under § 101 because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result, and does not fit within the definition of a machine. A claimed signal is not matter, but a form or energy, and therefore is not a composition of matter or product).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kogan (US 20040177150).

Regarding claim 11. Kogan disclose: A filter tree data structure stored on one or more computer-readable media, comprising: a first level having a root node that corresponds to an initial segment of hierarchical data ( root node, 0020, Kogan); at least one intermediate level having at least an intermediate node that corresponds to an intermediate segment of the hierarchical data, the intermediate node being subordinate to the root node (second node, 0020, Kogan); a bottom level having at least a bottom level node that corresponds to a final segment of the hierarchical data, the bottom level node being subordinate to an intermediate node (last node 0020, Kogan); and wherein at least one node is an active node (root node) that references an instruction set that is executed when an input is received that includes the segment corresponding to the active node and segments corresponding to all nodes superior to the active node (0026-0030, 0081-0091, Kogan).

Regarding claim 12, all the limitations of this claim have been noted in the rejection of claim 11 above. In addition, Kogan disclose: wherein: the active node further comprises a reference to a filter; and the instruction set is executed only if the input satisfies the filter (0102-0106, Kogan)

Regarding claim 13, all the limitations of this claim have been noted in the rejection of claim 11 above. In addition, Kogan disclose: wherein the instruction set if executed only if the active node is a bottom level node (0081-0090, Kogan).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 14-25, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kogan (US 20040177150) in view of Gunsay (US 6781961).

Regarding claim 1, Kogan discloses: A method, comprising: traversing a filter tree according to segments of the hierarchical data to locate one or more matching nodes that correspond to the hierarchical data (0102-0111, Kogan); comparing at least a portion of the input to one or more filters associated with the matching nodes (0081-009-0089, Kogan); and executing instructions associated with one or more filters satisfied by the input (0091, 0102-0111, Logan).

However, Kogan didn't disclose: receiving an input that includes hierarchical data. On the other hand, Gunsay disclose: receiving an input that includes hierarchical data (col. 3, lines 42 to col. 4, lines 22, Gunsay). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include receiving an input that includes hierarchical data in the system of Kogan as taught by Gunsay. The motivation being for routing electronic messages in a tree structure such that input message may be propagated down one or more branches of the tree structure to arrive at any terminal nodes of the tree having a value that describes the input message providing extremely organized in the filtering (col. 2, lines 45-50, Gunsay).

Regarding claim 2, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: further comprising applying a precedence rule to the matching nodes, wherein the comparing step is performed on a subset of the matching nodes that is determined by the precedence rule (as prefix match 0023-0028, Logan).

Regarding claim 3, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: wherein a node may be associated with instructions but no filter, in which case the input is deemed to match a filter for the node, thereby resulting in execution of the instructions (0081-0089, Logan).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: wherein the hierarchical data further comprises a path that identifies a location in a hierarchical system (0089, Logan).

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: wherein: a root node of the tree corresponds to a first segment of the hierarchical data (0020, Logan); a child node of the root node corresponds to a second segment of the hierarchical data (0020, Logan); and a bottom-level node of the tree corresponds to a last segment of the hierarchical data (0020, Logan)

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: wherein each node of the filter tree references zero or more filters (0020, 0024, Logan).

Regarding claim 7, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay disclose: wherein the hierarchical data further comprises a destination path identified by a segment string (0089, Logan).

Regarding claim 8, all the limitations of this claim have been noted in the rejection of claim 7 above. In addition, Kogan/Gunsay disclose: wherein the input further comprises message data that is transmitted to a location identified by the destination path if the input satisfies a filter that is referenced by a filter tree node associated with the destination path.

14. A system, comprising: memory (0018, Kogan); a filter tree stored in the memory (database of the filter stored in the policy table, 0018, Kogan), at least one node of the filter tree referencing a filter (root node, 0020, Kogan) a primary matching module configured to locate one or more filter tree nodes that match one or more of the segments (0072, 0078, 0082, Kogan); a secondary matching module configured to identify any filters associated with the one or more matching filter tree nodes and to compare the message against the filters to determine if the message satisfies any of the filters (0074-0090, Kogan); and a message processing module configured to execute instructions associated with any filter that is satisfied by the message (0074-0090, Kogan); a message input module configured to receive a message that includes a path having one or more segments (col. 4, lines 66 to col. 5, lines 15, Gunsay). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include receiving a message as above in the system of Kogan as taught by Gunsay. The motivation being for routing electronic messages in a tree structure such that input message may



be propagated down one or more branches of the tree structure to arrive at any terminal nodes of the tree having a value that describes the input message providing extremely organized in the filtering (col. 2, lines 45-50, Gunsay).

Regarding claim 15, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the secondary matching module is further configured to apply a precedence rule to the one or more matching filter tree nodes to derive a subset of the matching filter tree nodes and to identify only the filters associated with the subset of matching filter tree nodes (0074-0090, Kogan).

Regarding claim 16, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the filter referenced by the at least one node further comprises a null filter that is deemed to be satisfied by any input message compared thereto, thereby resulting in the execution of instructions associated with the node referencing the null filter (0074-0090, Kogan).

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the message path is of a hierarchical nature and successive path segments correspond to successively subordinate levels of the filter tree (col. 6, lines 21-45, Gunsay).

Regarding claim 18, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message (col. 8, lines 21-47, Gunsay); locate filter tree nodes associated with each path segment; and determine that each node located matches the message (col. 8, lines 21-47, Gunsay).

Regarding claim 19, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message; locate filter tree nodes associated with each path segment; and determine that a node associated with a final path segment is the only node that matches the message (col. 8, lines 21-47, Gunsay).

Regarding claim 20, all the limitations of this claim have been noted in the rejection of claim 14 above. In addition, Kogan/Gunsay disclose: wherein the primary matching module is further configured to: identify one or more path segments included in the message; locate filter tree nodes associated with each path segment; and determine that a node associated with an initial path segment is the only node that matches the message (col. 8, lines 21-47, Gunsay).

Regarding claim 21, Kogan/Gunsay discloses: A method, comprising: traversing a hierarchical data structure stored in the memory that is used to reference each of the multiple filters to determine if an existing location in the data structure matches the segment path included in the data transmission (0081-0090, 0104, Kogan); if an existing location is

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identified, adding a reference to the new filter to the existing location (0081-0090, 0104, Kogan); and if an existing location is not found, creating a new location in the data structure, the new location being determined according to the hierarchical reference data and storing a reference to the new filter at the new location (0081-0090, 0104, Kogan); receiving a data transmission requesting to add an entry to memory that stores multiple filters, the data transmission including at least a new filter, a segmented path identifying hierarchical reference data associated with the new filter, and at least one data item associated with the new filter (col. 4, lines 66 to col. 5, lines 15, Gunsay). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include receiving a data transmission as above in the system of Kogan as taught by Gunsay. The motivation being for routing electronic messages in a tree structure such that input message may be propagated down one or more branches of the tree structure to arrive at any terminal nodes of the tree having a value that describes the input message providing extremely organized in the filtering (col. 2, lines 45-50, Gunsay).

Regarding claim 22, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Kogan/Gunsay disclose: further comprising storing a reference to the data item at the new location so that an input matching the new location can access the data item (col. 7, lines 40-50, Gunsay).

Regarding claim 23, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Kogan/Gunsay disclose: wherein: each of the multiple filters stored in the memory is associated with hierarchical reference data (0018, Kogan); and the memory includes a filter tree data structure to reference the multiple filters according to the hierarchical reference data, each of the multiple filters being associated with a node in the filter tree data structure (0018, Kogan).

Regarding claim 24, all the limitations of this claim have been noted in the rejection of claim 23 above. In addition, Kogan/Gunsay disclose: wherein: each segment of the segmented path corresponds to a node in the filter tree data structure so that a node associated with a filter corresponds with a final segment of the segmented path; and each of one or more superior nodes to the node associated with the filter corresponds with a preceding segment of the segmented path (0026-0030, 0081-0091, Kogan).

Regarding claim 25, Kogan/Gunsay discloses: One or more computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps: parsing the destination path into constituent segments; comparing the destination path segments to a hierarchical data structure that is arranged according to the hierarchical protocol to determine one or more matching locations in the data structure that correspond with the destination path (0074-0090, Kogan); identifying one or more filters associated with the one or more matching locations; testing the message against one or more filters referenced by the one or more matching locations (0072-0090, Kogan); and for each filter satisfied by the message, executing one or more instructions associated with the filter

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(0074-0090, Kogan); receiving a data transmission that includes at least a message and a destination path that is structured according to a hierarchical protocol. (col. 4, lines 66 to col. 5, lines 15, Gunsay). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include receiving a data transmission as above in the system of Kogan as taught by Gunsay. The motivation being for routing electronic messages in a tree structure such that input message may be propagated down one or more branches of the tree structure to arrive at any terminal nodes of the tree having a value that describes the input message providing extremely organized in the filtering (col. 2, lines 45-50, Gunsay).

Regarding claim 28, all the limitations of this claim have been noted in the rejection of claim 25 above. In addition, Kogan/Gunsay disclose: wherein the one or more instructions associated with the filter further comprise a destination to which at least a portion of the message is transmitted (0070, Kogan).

Regarding claim 29, all the limitations of this claim have been noted in the rejection of claim 25 above. In addition, Kogan/Gunsay disclose: wherein the destination path is a network address (0082, 0089, 0109, Kogan).

Claims 9, 10, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kogan (US 20040177150) in view of in view of Gunsay (US 6781961) and further in view of Chan et al. (US 2004000752) (Chan).

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 1 above. However, Kogan/Gunsay didn't disclose: further comprising: identifying the hierarchical data contained in the input; and parsing the hierarchical data into segments for use with matching. On the other hand, Chan discloses: identifying the hierarchical data contained in the input (0075, Chan); and parsing the hierarchical data into segments for use with matching (0054-0057, 0077-0079, Chan). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include generate a query vector including identifying the hierarchical data contained in the input; and parsing the hierarchical data into segments for use with matching in the system of Logan/Gunsay as taught by Chan. The motivation being to detect matching substrings in the XML document and iterates, for each of the matching substrings through all instances of the matching substrings in document data tree to determine whether the matching substrings are non-redundant (0013, Chan).

Regarding claim 10, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Kogan/Gunsay/Chan disclose: wherein the traversing step further comprises: comparing a first segment of the hierarchical data with a first node in a filter tree level that corresponds with a position of the first segment in the hierarchical data (0081-0082, Chan); if the first segment does not match the first node, determining that the input does not match the first node (0081-0082, Chan); if the first segment matches the first node and there is a subsequent second segment in the input, comparing the subsequent second segment to one or more second nodes in the filter tree that are subordinate to the first node

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(0081-0082, Chan); and if the first segment matches the first node and there is not a subsequent second segment in the input, determining that the input matches the first node (0081-0082, Chan). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include matching steps above in the system of Logan as taught by Chan. The motivation being for keep track of the location of the search node at each document level (0081, Chan).

Regarding claim 26, all the limitations of this claim have been noted in the rejection of claim 25 above. In addition, Kogan/Gunsay/Chan disclose: wherein the hierarchical protocol is eXtensible Markup Language (XML) protocol (0027, 0028, 0030-0032, 0039, 0088, Chan). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include Xml protocol in the system of Logan as taught by Chan. The motivation being for fast exchange information on the Internet.

Regarding claim 27, all the limitations of this claim have been noted in the rejection of claim 25 above. In addition, Kogan/Gunsay/Chan disclose: wherein the one or more filters are defined using Xpath (0027, 0028, 0030-0032, 0039, 0088, Chan).

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***Contact Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gafin Jeffrey can be reached on 571-272-4190. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*CN*

Cindy Nguyen  
August 25, 2006

  
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